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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Claudio Lacagnina

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EXAMINER

KNABLE, GEOFFREY L

ART UNIT

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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,487	Applicant(s) LACAGNINA, CLAUDIO	
	Examiner Geoffrey L. Knable	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 34-66 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/6/05</u> . | 6) <input type="checkbox"/> Other: ____. |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 34-42, 48, 49, 54-56, 61, 63 and 66 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ogawa et al. (US 2002/0088529).

Ogawa et al. discloses a method of assembling tyres for vehicle wheels, comprising: disposing a carcass structure on a primary drum and shaping the carcass to a toroidal configuration (e.g. figs. 4-5), applying a tread band (22) onto the belt structure (21); and applying a pair of sidewalls to the carcass structure on opposite sides of the carcass structure (esp. figs. 4-5); wherein the carcass structure comprises at least one carcass ply in engagement with annular anchoring structures (12) axially spaced apart from each other, wherein the belt structure (21) comprises at least one belt layer, and wherein at least one of applying the tread band and applying the pair of sidewalls is carried out by winding up at least one continuous strip element of elastomer material in contiguous circumferential coils around the carcass structure. As to disposing the belt structure on an auxiliary drum and transfer thereof, in the description of figs. 4-5

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(paragraph [0049]-[0052]), Ogawa et al. discloses that the belt layer is in the form of a ring (21) which is "set in advance" for engagement with the expanding carcass.

Although specific suggestion of building on a drum and transfer is not explicit, it is considered that the ordinary artisan would have understood this teaching of a ring form belt that is set in advance as implicitly suggesting formation thereof on a drum and transfer as claimed. Further, even if not deemed implicit, it would have been obvious to form the belt ring on a drum and transfer it as it is typical in tire building to form a belt (or belt and tread) ring on a separate drum and then transfer it for engagement with expanding carcass - note also for example paragraph [0061] which evidences the conventional nature of such formation on a separate drum. The method of claim 34 is therefore anticipated or obvious from Ogawa et al.

As to claims 35 and 36, strip winding both the tread and sidewalls is suggested by Ogawa et al. As to claims 37-38, note fig. 5. As to claim 39, note paragraph [0052]. As to claims 40-42, winding an extruded strip is suggested (e.g. paragraphs [0012] and [0040]), it being implicit or obvious that this strip would be delivered close to the tire being assembled on a rotating drum with relative transverse displacements. As to claims 48-49, two stage forming/assembling using two drums is contemplated (paragraph [0056]), simultaneous building and shaping being implicit or obvious. These two drums can be termed a first and second primary drum.

As to claim 54, Ogawa et al. discloses an apparatus for assembling tyres for vehicle wheels, comprising: at least one primary drum (supporting the carcass 13); at least one unit for applying a tread band (22) onto a belt structure (21); and at least one

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unit for applying a pair of sidewalls (17/20) against opposite lateral walls of a carcass structure; wherein the at least one primary drum is arranged to support the carcass structure, wherein the carcass structure comprises at least one carcass ply in engagement with annular anchoring structures (12) axially spaced apart from each other, wherein at least one of the units for applying the tread band, at least one of the units for applying the pair of sidewalls, or at least one of the units for applying the tread band and at least one of the units for applying the pair of sidewalls comprises at least one delivery member, and wherein the at least one delivery member lays down at least one continuous strip element of elastomer material in contiguous circumferential coils on the carcass structure (note strip wound tread/sidewalls in figs. 4-5). As to an auxiliary drum and transfer for building/transfer of the belt ring, such is implicit or obvious for the same reasons noted above with respect to claim 34. An apparatus as required by claim 54 is therefore anticipated or obvious.

As to claims 55-56, winding an extruded strip is suggested (e.g. paragraphs [0012] and [0040]), it being implicit or obvious that this strip would be delivered to the tire being assembled on a rotating drum with relative transverse displacements. As to claim 61, Ogawa forms both the tread and sidewalls from wound strips, it being implicit or obvious that different delivery members are or should be used. As to claim 63, two stage forming/assembling using two drums is contemplated (paragraph [0056]). As to claim 66, the transfer for moving the belt to the carcass from an auxiliary drum is implicit or obvious for the same reasons noted above.

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4. Claims 43-47, 57, 58 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (US 2002/0088529) as applied above, and further in view of at least one of [Caretta et al. (US 2001/0042586) and Oku et al. (US 2006/0096696)].

As to claims 43-47, 57, 58 and 60, the helical winding in Ogawa et al. would require relative transverse displacement of the tire and discharge device/extruder but further specifics are not provided. Given that achieving such relative displacement would have required moving either the tire (drum) or the extruder/discharge device (or both), it would have been obvious to move either for only the expected and predictable results. This is especially evident in view of Caretta et al. (e.g. paragraph [0017]) and Oku et al. (esp. paragraphs [0047]-[0048]) which have been cited to show that it is known to be suitable and effective and in fact desirable in this art to effect the relative transverse displacements for strip winding tire components by transversely moving the drum rather than the extruder. Caretta et al. also shows using the drum movement device (robotized arm) to bring the drum to appropriate workstations including different extruders/delivery members (14/15). Movement of the drum to effect the required relative movements, as well as movement between the various building stations, would therefore have been obvious and lead to only the expected results.

5. Claims 50-53, 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (US 2002/0088529).

As to claim 50, as already noted, two stage building is suggested, it being obvious to transfer the belt at any appropriate stage. As to claims 51 and 65, inclusion

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of run-flat sidewall inserts that extend from the belt to the beads are taken to be well known and obvious in this art to enable run-flat tire performance. As to claim 52, pressing components applied during tire building is well known and obvious to ensure bonding and air exclusion - note also paragraph [0061] of Ogawa et al. which suggests use of a stitcher roll to ensure firm adherence. As to claim 53 and 64, whether the tire being built is stored between stages of assembly would have been readily and routinely selected by the artisan dictated by manufacturing, space, etc. concerns - only the expected and predictable results would have been achieved.

6. Claims 59 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al. (US 2002/0088529) as applied above, and further in view of Okada et al. (US 2001/0002608).

Building the tire using a drum movable along a carriage between winding positions and/or two drums upon which the tire is built would have been an obvious building configuration in view of Okada et al. which is also directed to forming tires in a multistage process including strip winding and suggests suitably moving a drum carriage along a guide (e.g. note 13/14 in fig. 1) or using two different drums (14a/14b in fig. 7) sequentially located at the building positions.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hollmann (US 4,283,241) is another example of winding a strip on a carcass to form the sidewall as well as use of an auxiliary drum for belt building but is at present no more relevant than the applied prior art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/
Primary Examiner, Art Unit 1791

G. Knable
August 17, 2008